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THE TECH.

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We are much pleased with the appearance of the *Architectural Review*, the first number of which has just appeared. It is safe to say that nothing like it has ever appeared in the world of college journalism, and it is fully equal in typographical excellence and in its photogravure plates to the best professional work of its kind. While of professional interest only to the architectural profession, it is a paper which every student of the Institute can be interested in, and which every one should subscribe to, not merely for the sake of supporting the publication, but also to show what the undergraduates of the Institute are capable of. Such a paper is one of the best possible advertisements which the Institute can have, and it is certain that its circulation cannot but

help augmenting the reputation of the Institute and the number of its students. The Architectural Society deserves great credit for its enterprise in thus establishing a new publication of such credit to the Institute.

IT is to be hoped that by the time this number of THE TECH appears, our gymnasium will be thronged with athletes who are preparing for one or more events in the games which occur the first Saturday in March. Most especially is competition needed among candidates for the tug-of-war, for as yet none of the members of the 'Varsity team have been selected. Harvard is putting forth all exertion that she may redeem herself after last year's defeat, and we as Techs. must strive to keep up our present record of victories. Most necessary of all is it to develop another first-class anchor, who may step in, in case our last year's anchor fails us, and save us from the disgrace of being pulled off the cleats. With this end in view, then, let every man who is physically fit, strive for a position on the team, with the assurance that equal justice will be rendered every candidate by the committee on the matter appointed by the Athletic Club.

THE good taste of the Freshmen this year, in not wearing their drill caps outside of the gymnasium, deserves recognition. In this we believe they are ahead of all previous classes, and it is to be hoped that future Freshmen will realize that it is a good example. To want to advertise one's self as a student at the Institute shows a commendable pride, but the wearing of drill hats is a relic of high-school days that may well be done away with.

THE province of a college editorial seems to be generally that of finding fault. Whether with reason or not, it is not our present intention to discuss. We simply wish to depart from this time-worn way, for a moment, to take a look at one of the bright spots on the other side of the picture.

During the past very severe weather our exchanges have been filled with accounts of freezing class-rooms and shivering students. Classes have had to be discontinued for days, in some instances, and time and patience were lost by both professor and student; and the agonized cry of the latter for snug buildings, together with good ventilation and efficient heating apparatus, finds its way into his college paper.

We have been many times called upon to discuss the numerous disadvantages attending a student's life at a city college. The lack of class spirit, the isolated nature of our lives, etc., are all objections to an institution at a metropolis. But when spring shall have come on apace, and the earth shall have assumed its beautiful green, the editor of the country college paper will, as usual, lay himself out on the attractions of his own particular institution, and of the various advantages it, and all similar to it, possess over the dusty, noisy college of the city. Let us not then forget, when we are sighing for the freedom and quiet of which he boasts, that while he was giving his half-frozen attention to a chilling lecture, we were reveling in all the warmth and comfort of two of the best-heated and best-ventilated buildings in the land.

IN view of the approaching in-door meeting of the Athletic Association, we think it would not be out of place to urge men to go into training at once to secure the best results in this competition with outsiders, as well as fellow Techs. At the first in-door meeting of the season there was but a poor showing, owing partly to lack of notice, and partly to the proximity of the season of grinding. Now, fresh from the "exams.," good, systematic exercise will not

only unsnarl the brain, but also put it in running order for the next important hurdle in the Institute course. How can a man be kept more faithfully at his exercise than when urged on by the incentive of personal, class, or Institute glory to be maintained?

We have material enough, but the majority say they have no opportunity. Think a moment, and ponder the fact that the busiest men are those who in reality have the most time; they learn how to systematize their work, and could get in half an hour's training while these very men who complain are bemoaning their lack of time. Make time, and you will be surprised at the ease with which it is done; then, once you have accomplished this, start in for active but well-advised work, and thus add your mite to the grand collection.

The Athletic Association deserves your personal as well as pecuniary support; not only from its own inherent merits, but for its push and enterprise, as well as its generosity to that poorly supported but well-founded Institute sport, football.

WHY would it not be a good idea to have some sort of a trophy-room here at the Institute. To be sure we have not a large number of trophies at present, but we have made a good start toward them. There is the football championship banner, which with photographs of our various athletic teams, would make a very good beginning. Is there not some room in Rogers or the new building, to which every one has access, that would be suitable for this purpose. The use of the room need not be interfered with in any way, and these records might be preserved there, where all could see them. If such a room could be furnished for this purpose we feel sure that the Athletic Club, or some of the other Tech. organizations, would defray the trifling expense of buying and framing the pictures of the foot-ball teams of the last three years, and our two tug-of-war teams which pulled Harvard. Let this matter be talked up, and see what can be done about it.

RECENT manipulations in the selection of a committee to recommend "Technique" Editors for '90's Board, suggested the following:

It is, unfortunately, absolutely impossible to prevent cliques, and possibly factions, from running, so to speak, a class affair.

Perhaps it is natural that a popular man should be rushed in for office by his following, and in such a case, if he obtains an election, it is only right and just, for it is then purely a majority ruling; but it seems to us wrong, both in principle and result, for a single man to usurp this privilege of the majority, and by simply constituting himself "the first sheep over the fence," force the class to accede to his wishes.

It is, undoubtedly, a man's right, but we question the advisability of a single individual's reading off name after name for nomination. As long as he holds the floor, no others can interpose their candidates; and any one familiar with class-meeting at the Tech. will vouch for the readiness of some "friend of the cause" or innocent suburban anxious for his train, to call out as soon as possible, "I move the nominations be closed." Some may contend, in defense of this, that the class can prevent this result by voting down the motion; but there is a certain inanition about a body of men like this which the energy of the few who have the best interests of a class at heart cannot overcome before it is too late.

WE intend after this to offer a special feature in the forthcoming TECHS which we think will prove not only interesting, but also profitable, to our readers. We expect to publish in each number a letter from some of the alumni of the Institute. Although in the main they will be literary, yet we shall not exclude the scientific. This will, in a manner, band together the older and the younger members, and give us an insight into some of the experiences that we may expect after leaving the walls of the M. I. T. The Alumni are a pretty extensive body, and cover a tract embracing the four

quarters of the universe, so that the subject-matter may be expected to be as multifarious as the divisions contained within the circumference from which we draw our contributions.

This matter should have been attended to long ago, as it offers a very fertile field; and as long as our immediate members appear so sterile or indifferent,—we are not sure which,—it is necessary to develop some outlying territory, do the entire work ourselves, or announce the struggles ended and the death of THE TECH.

THE President's Report of the Institute has come from the press, and is now ready for distribution. It would be well if every student sent a copy to his relatives, for it would give them a thorough idea of the present condition and standing of our institution. It is particularly interesting to note the great increase of students here in the last decade in the department of Industrial Science. From the comparatively small number of 188 students in 1878, the department has grown till now it numbers 720 young men and women. Such an increase is surely the reward of merit, and augurs well for an extremely fruitful and successful future for our *Alma Mater*.

WE have a regulation at the Institute which requires that all lectures and recitations shall end five minutes before the hour, and that the next one shall begin five minutes after the hour; thus allowing the students ten minutes to go from one room to another, or from one building to the other. If this requirement were strictly adhered to there would be a very satisfactory state of affairs; but the professors do not always regard it, and so it often happens that a whole class is late at its next recitation.

We think this could be remedied if the Institute would adopt the custom of the German Universities, where the classes begin their work a quarter after the hour and end exactly on the hour. To be sure, this would be a longer inter-

mission, but if it would bring about less tardiness, there would in the end be a gain in the actual time spent in work. If need be, the doors could be locked, for all tardiness would surely be the result of carelessness. The gongs in the halls could sound on the hour, when the classes would be promptly dismissed, and, again, a quarter of an hour later, when the doors would be closed and the work begun immediately. Instead of having the intermission thus, it might begin a quarter before the hour, and then all the lectures, etc., would start on the hour. This is a question worth thinking over, and the Faculty might do worse than give the matter their consideration.

HAS it ever occurred to the large body of young men attending the Institute, that in one particular they stand singularly alone, as compared with the great seminaries of learning? Second to none in curriculum, faculty, and all that should be embraced in a college of standing, yet as far as *esprit de corps* among the students themselves is concerned, they rank far below the pettiest Western academy. In Yale, Harvard, Princeton, and schools of this type, there runs an electric feeling that pervades each classman, from the most grave and reverend Senior down to the freshest Fresh. *Alma Mater* is a realism to them, and the rallying point for one and all, and not simply a name signifying nothing. Each member is a sort of missionary for the spread of the song and story that chronicles the glory of their literary mother, thus endeavoring to win proselytes, and advance the fame of the one which has carefully guarded their tottering steps from weakness to strength.

This has struck us forcibly in looking over a copy of late college songs, in which all of the institutions we have mentioned have a place, and have so expressed themselves in air and words that time has but enhanced their value. The veriest schoolboy can pick out Harvard's song from that of Yale, and to the college man it is a sort of *Marseillaise*, that musters within

his bosom all the warmth of feeling that made it in France, for so many years, a criminal offense to sing that song.

Who has not heard of "Coch a chelunk," "It's the way we do at old Harvard," "Bingo," "Eli Yale," and a host of others that space forbids us mentioning, but which will readily suggest themselves to the reader?

The Institute stands alone and voiceless in this matter; not from want of material, or talent, but simply this lack of *esprit de corps* of which we have already spoken. We would suggest that the musical members of the M. I. T. have a meeting for the discussion of this matter, and form a sort of ways and means committee, whose duty it shall be to offer a prize for the best college song. This once obtained, a second prize can be offered for a popular air to which it can be set,—something that the veriest novice in matters musical can take part in. Such an action, we think, will receive the cordial support of every student, financially as well as otherwise, and will redound to the credit of every classman from '88 to '91.

THE unusually large size of this TECH is intended to make up for the rather small number we issued during the examinations, and not as a precedent for those to come. It would be much more to our taste if the size of THE TECH could be maintained about the same throughout the entire year. But as editors are mortals like the rest of the students, and as a good mark in an examination is just as important to them as to any one else, they could not afford to publish the usual number of pages at the expense of too low marks in their examinations. During the rest of the term we shall expect to publish the ordinary sixteen pages. In order to do this, without the utmost work on our part, some outside assistance will be necessary. Let, then, our subscribers turn to, and in place of grumbling at our shortcomings, do a little writing themselves. THE TECH is their mouth-piece, but if they remain silent, it can but poorly voice their sentiments.

A Glimpse into the Wilderness.



HANGE cars!" With the promptness born of long travel, the passengers, arming themselves with their impedimenta, marched forth in single file. We had reached the northern terminus of the Adirondack Railway. Before lay the to us unexplored wilderness

of Northern New York, with its primeval forest of hemlock, spruce, and pine, with its solitary log-cabins and chain of lakes. It seemed that we were about to step back a few centuries, to lead the rough, bold life devoid of comforts and conveniences that characterized the early settlement of this country. Behind us lay the world, with its teeming millions,—its noise, and bustle, and hurry, with its railroads, its telegraph, its steamboats. Henceforth we were to bid adieu to this noisy world, than which we had known no other since childhood, and plunge into that other, which was as yet unchanged by the hand of man,—which was quiet and soothing to the overtaxed brain and unstrung nerve. The shriek of the on-rushing train would henceforth be replaced by the weird hoot of the midnight owl, which would only serve to render nature's silence the more impressive. Cozy rooms and soft beds were to be exchanged for the open camp and hemlock bough on the shores of a forest lake, where the wild doe rears her fawn, and the old buck comes to drink.

As we stepped from the train upon the little platform that surrounds the depot at North Creek, we felt that, for the nonce, we were bidding good-bye to friends, to home, and civilization. We were now to be out of reach of the telegraph, and we could obtain our letters only after great delay and at uncertain intervals. Notwithstanding these thoughts, which could not but be serious, we were all impatient to begin the life we had dreamed of so long.

North Creek is a little hamlet, with two miserable hotels and the same number of stores. It derives its entire importance from the fact that it is the terminus of the railway. The track was, in fact, laid out to a small place six miles farther on, but the influence of the good people of North Creek prevented the last six miles from ever being used. The rails were removed, and the ties may now be seen slowly rotting, as a temporary monument, at least, to the business sagacity of the North Creekers. Here the livery man is in league with the hotel-keeper, and it invariably happens that the tourist has to spend the night with mine host McInnery.

"Buck-boards" are the only kind of conveyance used, save the stages. They are generally three-seated and covered, and, drawn by a pair of powerful horses, make a very comfortable means of transportation.

Long Lake is the longest and one of the largest in the Adirondack wilderness. A small cluster of houses, termed Long Lake Village, nestles among the hills on its eastern shore, and forms the terminus of the carriage road from North Creek, from which it is distant about forty-five miles. The road is rough and hilly, in many places corduroy, but the easy buck-board and strong horses make light work of it; and provided the start is early, there is no difficulty in traveling the forty-five miles before sundown.

Space forbids my entering into a detailed description of this drive,—so novel, so primitive, so enchanting. Upon leaving North Creek the country is slightly undulating. The Hudson, here a mere brook, dances and tumbles rapidly by. Soon the aspect changes,—the outlines become sharper, the forest growth larger and more stately, the hamlets, composed mostly of log-cabins, more scattered. An extensive barren district is passed early in the day, which the deadly forest fire has left thus desolate, with now and then a white and naked tree stretching its withered arms to heaven, as if in mute protest against the destructive advance of man with fire and axe. Noble monarch of the past! even the wild flowers that cluster at thy feet

bow their heads in silent sympathy, and sigh for the shade that is to be theirs no more.

Here great clusters of the elderberry hedge in the road; here the wild clover grows in rank profusion, contrasting strongly with the brighter flowers by the wayside, and giving a cheerful tone to the otherwise drear and barren prospect.

The burned district soon gives place to the broad and shady forest, which stretches into the illimitable wilderness. Spruce, pine, and maple rear their proud heads high in air while extending their strong arms to support their weaker neighbors, whose foothold is not so well assured in the rocky soil.

Now in the damp, shady valley, now on the crest of some steep hill, always beneath the spreading limbs of the majestic forest-tree, the driver follows the tortuous road.

But we must hurry, as we have yet nearly twenty miles before us; and the sun has already hid its face to the smaller trees, and the shadows are no longer round, but pointed.

The road is now entirely devoid of habitation. Save the carriage-way and an occasional deserted "lean-to," there is no sign of man to be seen.

The first glimpse of Long Lake is never to be forgotten. Burnished a rich golden by the setting sun, the clear water sparkles and dances in its green basin between two rows of mountains that, as grim sentinels, frown on all from either side. The road now follows the shore of the lake at the foot of a high mountain, which is indeed the back-bone of the entire range; for it is the watershed separating the waters of the Hudson from those of the St. Lawrence. Just as Owl's Head receives its good-night caress from the sun, and as all, save the crimson sky, above is darkness, our buck-board, with a great swing, drives up before the small hostelry at Long Lake Village, where our supper, our beds, and guides await us.

The most essential factor of success to an Adirondack camp is the guide. The members of the party may all be congenial, the spot chosen delightful, and the boats, lean-tos, etc.,

all that could be desired, but unless the guide possessed certain indispensable qualities of mind and body, together with long experience in his profession, the summer's trip will be anything but "a thing of joy." I have seen a contented, successful, and energetic party of campers metamorphosed into a despondent and listless body of homesick wayfarers by nothing but a change in the guide *en chef*.

A guide should resemble a general,—strong of body, active of mind; of course a perfect knowledge of the whole wilderness, and of the nature and habits of every animal therein, is pre-supposed. He should also be a good cook. But the most important quality I have not yet mentioned; namely, decision of character. It should make no difference whether he (or any one else) can answer the question proposed, if it pertains to the mountains, to the elements, to the animals, the guide must answer at once, and decidedly. To hesitate is to lose the confidence of the entire party. It is seldom that all these qualities are found united in one man; and as a poor guide ruins the entire excursion, I would advise all to procure a highly recommended one before leaving home.

This important personage in our party combined all the above qualities. Son of an old Indian trapper of the St. Frances tribe, Isaac Sabattis had been early trained in all the arts of woodcraft. With his broad chest, pearly teeth, and piercing black eye, he was the admiration of all the village maidens. His hundred and ninety-three pounds of flesh he carried as lightly as a girl of sixteen. His shot was unerring, his canoe swift and silent, and his coffee excellent.

At the foot of Owl's Head Mountain, nestling closely to its rough sides, and reflecting the graceful forms of the dark pine balsam in its crystal waters, lies Clear Pond. A few miles to the west of Long Lake, yet seldom visited by man, Clear Pond affords wonderful advantages to the sportsman,—sequestered and solitary, dropped like a great pearl from the blue heavens above into the vast forest, where it shines and scintillates, in its dark-green setting, in

sympathetic accord with the stars o'erhead. Possessing all the beauty and wildness of the great wilderness, the camper on Clear Pond is only a few hours removed from Long Lake Village, where post-office and stage connect him with the outside world.

One should not choose for permanent camp the lake where he expects to do his hunting, for the timid deer, soon learning of his presence, will leave for other parts, where the unnatural sounds and odors of the hunter's camp will not disturb his nocturnal repast by the edges of the water.

At Clear Pond, therefore, under the wide-spreading branches of an enormous pine, and closely surrounded by beech, spruce, hemlock, and balsam, we, or rather our guides, built our camp. A rude frame covered with the bark of the spruce and open to the east constitutes the "lean-to"—the bed-room, parlor, sitting-room, and, not unfrequently, dining-room of the hunter. Here hang his clothes; here rest his rifle, rod, and tackle; here is his bed on the sweet pine balsam, which, picked fresh each week, covers the floor. Here our camper smokes his pipe, reads last week's New York papers, and plans his next hunt. Here nightly, before the ever-open front, burns the great camp-fire of mighty logs, from which myriads of scintillating sparks shoot upward to dance with the dark shadows.

Leaning on his elbow, with the great fire at his feet, the dark lake at his side, and the silent forest over all, the hunter smokes his pipe in silence; he is awe-struck by the immensity and wonderful beauty of all save self. He is lifted up and sanctified. The busy world, with its bustling and jostling, appears to him in a new and smaller light. The remembrance of his every-day life yonder in the great city, jars upon his nerves and seems foreign to his nature. As the deep snores of the guides and the crumbling of the "back log" indicate the lateness of the hour, our tired hunter, with a sigh, knocks the ashes from his pipe, and rolling himself up in his blanket, closes his eyes to dream of home and friends that are afar, of studies and examinations. But the sweet odor of the balsam

permeates every sense, and gently turns his mind from such distracting themes, and in their place suggests pictures of the grace and beauty that surround him,—the murmur of the lapping waters of the lake, the solitary cries of night, the soothng of the voiceless wind in the forest-trees that are nodding overhead.

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There are many different ways of deer-hunting, more or less scientific. It is only the old and experienced hunter that ever attempts the "still hunt," and then only in the winter.

The highest skill of the sportsman is here brought into play. The unsuspecting deer is followed by its trail in the snow until a favorable opportunity is afforded for a shot. The eye, ear, and nose of these timid animals are ever on the alert, and the breaking of a twig, or the moving of a branch, is frequently sufficient to startle the object of your search, and lend to its retreating form the fleetness of the wind. It is, however, the keen sense of smell that the hunter fears most, since there is nothing that frightens these fleet-footed creatures more than the smell of man.

"Crust hunting," which is nothing more than butchery, is no longer resorted to in the Adirondacks. It consists in following the animals on snow-shoes, generally when the crust will support the weight of man, but the sharp foot of the deer breaks through, thus retarding its progress to such an extent that it is easily overtaken and dispatched.



"Jack shooting," which is prohibited by law, I believe, takes place in the early autumn, before the deer have yet been frightened by the

dogs. At night the deer leave the sequestered spots where they have passed the day, and come down to the water to feed. The lily-pad and the wild grasses growing on the edges of the forest lakes are their food *par excellence*. The guide and sportsman usually manage to reach the pond where they expect to do their shooting, before sundown. Supper is eaten, the boat launched, and the positions taken therein. There must be no moon, neither must there be any wind. The guide handles the paddle at the stern. The sportsman sits in the prow, with his rifle on his knee, and his "jack," unlighted, by his side. The "jack" is generally constructed of a tin coffee-pot, with its nose and a large section removed from the front, and a leather band attached to the bottom, so that it will securely fit upon the head. There are usually two candles placed uprightly in the interior; when within a suitable distance from the deer the "jack" is noiselessly lighted and placed upon the head. The light shining over the sights of the rifle enables the hunter to take good aim, while it rather enchanteth than frightens the animal.

While waiting for the deer to "come in," perfect silence must be observed. A change of posture is not to be thought of. Thus resting on the placid bosom of the dark waters, now noiselessly following the silver wake of some bright star, now gliding in between the dark shadows of the fir-trees, the hunters await the coming of the unsuspecting deer. With nerves all strung, and senses strained to the utmost, each sound is magnified a hundred-fold. The cracking of a twig; the diving of a musk-rat; the chirp of the owlet on its mother's return,—all cause an involuntary start to the inexperienced. The woods and waters seem peopled with deer, and the continued silence of the pilot serves only to render him the more impatient. At the crash of the falling forest-tree he seizes his rifle with sudden alarm; yet the imperturbable guide paddles softly on, now waiting to hear repeated a suspicious sound, now skirting silently the shore of some tempting feeding-ground.

Finally, just as the sportsman has about lost confidence, and is sighing for the comfort of his

blanket and pipe, the guide whispers softly, "There's a deer!" The effect is electric. The relaxed nerves are once more wildly excited, while eye and ear are strained for some sign of the object of the hunt. The boat glides swiftly on in perfect silence among the deep shadows for a few moments. They seem an age.

"Light your jack;" with nervous hands the taper is approached to the candles, and the reflecting light placed upon the head. A great cone of brilliancy penetrates the darkness before him. Quickly our sportsman's nervous eye scans the neighboring shore, till his attention is arrested by two great balls of fire, shining with wonderful brilliancy from out the darkness. Noiselessly the boat continues its swift course. A weird, phantom-like form, but indistinctly outlined against the dark background, and partly hidden by the rising mist, now appears, and connects itself with the balls of fire. The sportsman forgets for the moment that this is the object he longs to kill, but watches with silent wonder this beautiful ghostly apparition, until the pilot, with a sharp stroke of the paddle, turns the boat to the right, and whispers, "Let her have it!" The rifle-stock presses against the shoulder; the two sights on the barrel are sharply defined in the light from the "jack," and there beyond, in a line with them, already gathered for a spring, stands the phantom figure. There's a flash, a bound, a loud report, and then all is silence, save the noise of something tearing through the thick underbrush. Then it falls with a dull crash; then a few convulsive struggles, and all is quiet as before.

The fatal ball has reached its mark, and yonder bleeding body proclaims the accuracy of your shot and the steadiness of your nerve.

You have gotten your first deer, and are entitled to the congratulations of your guide.

MA CONTEMPORAINE.

You boast an equal age with me,
But Cupid will not this believe,
For long ago, the sisters three
By chance my thread with yours did weave.

By guess-work, then, the matrons grave
Parted the bulk of time in two;
To me but winter's snow they gave—
Autumn and summer fall to you.—Ex.

The Redwoods.

IN California alone, of all this wide world, there grows to-day a tree whose ancestors were nourished by the soil of more than one continent in the salubrious times before the ice of the tertiary migrated from its northern home. This tree is the redwood (*sequoia sempervirens*), a near cousin of the "big tree" (*sequoia gigantea*), and easily confounded with it. The big trees are found at a considerable distance inland from the Pacific; but the redwoods cling closely to the coast-line, for they are found only in a strip of country twenty miles wide that borders on the ocean, and extends from near the Oregon line as far south as Santa Cruz. The primeval forest, undisturbed by man, is impressive in its grandeur. The solemn silence, the great pillars of gray, indistinct in the dim light, rising so symmetrically on all sides, the dark, damp ground, quite free from underbrush, the light green ceiling of interlacing foliage, through which the light feebly streams hundreds of feet above one,—all conspire to create in one a feeling of insignificance, and cause him to wonder how many thousands of years ago they, too, were insignificant. Though not so large as the big trees, the redwoods are by no means diminutive, for they frequently grow to be over twenty feet in diameter and five hundred feet in height. Ten such trees put end to end would reach a mile. What splendid fishing-poles they would have made for the Titans of old! It is not unusual to find single acres of forest containing a million feet of standing timber, and single trees have been known to yield ninety thousand feet of lumber.

As the name implies, the wood of the tree is red,—a deeper red than cherry, and often almost brown, though the color varies much in different parts of the tree. This inner red circle is surrounded by a white ring of growing wood, and without that lies the brown, fibrous bark, often a foot or more in thickness. The sap from the living tree is pink in color and very liquid, but speedily turns black on removal. The water in which the logs are kept soon becomes of a dark brown color, and the hands of the mill men

employed in handling the lumber are stained deeply black. The bark, on account of its porous and fibrous nature, is used to a considerable extent on the roads traversing the redwoods, where the ground is wet all through the winter. Its peculiar properties make smooth and passable highways, which otherwise would be veritable mud-lakes, strewn here and there with bottomless pits. The wood varies much in grain, according to the portion of the tree from which it is taken. Near the butt the wood is quite dark and close-grained; a little higher in the tree these properties are less marked; and toward the top of the tree the wood is soft and porous, and much lighter than at its base. I doubt if any wood, including even sugar-pine, splits as smoothly along the grain as does the redwood. A whole house might be built from it without the aid of drawknife or plane, for the timbers, boards, and shingles split out of the tree as symmetrically as if cut by a saw. In the butt of the tree the grain is often wavy and prettily colored, but it is from excrescences growing on the sides of the trees that the most beautiful specimens of curly redwood are procured. Excrescences six or eight feet in diameter often occur, and are usually quite sound. The grain is extremely erratic in these, with a coloring of rich, dark red; and since the wood takes a polish like glass, cabinets and tables of extreme beauty are made from them.

During April, after the winter rains, common to the region, have well-nigh ceased, the loggers begin to make their way into the woods, and within a short time the logging claims are scenes of great activity. Should the claim be a fresh one, and as yet unworked, the first work done is in clearing off an acre of land on some convenient level spot. Then follows the erection of the shanties. As if by magic the crude buildings rise into existence, and the end of a week sees the long, low cook-house completed, closely beset by the smaller dwelling-houses of the loggers, with the barn, loosely put together, looming up at a distance like a monster sentinel.

The cook-house is the centre of settlement, both from size and gastronomic importance;

and should one happen along at noontime, he might see the hundred men or more seated around the great, long table on benches of home manufacture, and the cooks rushing about with coffee-pots and odorous steaks, or blowing the big tin horn as a summons for loiterers. Off the dining-room lies the kitchen, with its steaming range and suspended tinware. Woe betide the logger who seeks to penetrate its mysteries. " Fired " but faintly represents the result of his rash daring. The store-room, with its rodent occupants, and the sleeping-room of the cooks, open into the kitchen, and through crevices on all sides bramble-vines seek entrance, and grow inwards unmolested. The little shanties of the hands, with their single rooms, are used simply as sleeping-places by their owners, and the very primitive furniture includes a tier of bunks, a table, and a few three-legged stools. A spacious mud fireplace gives light and warmth in the short evenings of fall and winter, though candles are brought into requisition on special occasions, as when a game of cribbage is started, or poker, with its pairs and full houses, reigns supreme.

While the building is yet in progress, the head chopper and the boss of the claim begin their visits into the timber, and one after another the most perfect trees are marked with the seal of destruction. The head swamper follows. Along the little ridges and into the gulches he lays out the roads along which the logs will be snaked by donkey-engine and oxen. While the sawyers are occupied with felling the trees, the swampers busy themselves with spade, and saw, and axe, sawing through great logs, chopping out roots, filling in holes, and leveling off irregularities. From daylight till dark these sturdy workers toil along, rigged out in flannel shirt, overalls, and top-boots, and begrimed beyond recognition with dust and soot; happy always, however, and ready for the next joke.

Extreme care is necessary in felling these large trees, for the shattering of even one in the falling would involve a considerable loss, and seriously influence the profits of the business. In order to reduce this loss to a minimum,

the trees are felled into " beds," which are straight, smooth ways, free from stumps or logs, though not necessarily level. It is delicate work to have the tree fall true, but the experienced chopper succeeds in almost every case. To accomplish this, a cut some two feet deep is made with an axe in the side of the tree facing the bed, and in such a position that the handle of a double-bitted axe placed perpendicular to the face of the cut, points directly along the line of the bed. When this has been managed, a huge cross-cut saw is started on the opposite side, and after it has penetrated the wood a few feet, steel wedges are inserted and driven in from time to time, as the sawing progresses. At length the strength of the uncut part of the tree is powerless against the great weight of the trunk and branches, and the ominous crackling begins. Heavy blows are now applied to the wedges with sledge-hammers, and at last the tottering giant falls to the ground with a sound of thunder that echoes and re-echoes among the cañons with progressing faintness. The thick bark of the prostrate tree is next peeled off with axe and crowbar, and after that has been done, the timber is sawed up into lengths varying from sixteen to twenty feet, the top of the tree, where there are branches, being rejected. In some cases the combined lengths of the knotless logs taken from the tree amount to three-quarters of its whole length. The most interesting sight in the woods begins after the logs have been cut and trimmed; for then the donkey-engine fastens on them, and with the aid of jack-screws and pulleys drags them from their inaccessible beds to more open spots, where the oxen are able to work. The " donkey " is a most useful servant to the logger, for it can pull itself to any place where its service is required, being merely an upright engine securely fastened to a sled, and is capable of exerting a great deal of power. The puffing and rattling of the little thing seems, too, to add life to the scene, and it has the additional charm of being economical. " Dogs " are driven into the logs, fastening them in a string, and then the twelve yoke of oxen are hitched on by a long chain. The ox-teamster, or, as he

is more often called, "bull-puncher," begins to brandish his goad-stick and shout at the top of his voice. Soon this fierce invective and generous use of brad produces its effect, and the logs go sailing along the wet road, along which, in front of the logs, the water-boy keeps pouring water. When the slight descent of the road has ceased and the level reached, half of the logs are dropped, and the oxen "snake" the remainder along the road, which is here laid across with round poles called "skids," placed a yard or so apart, and these are greased with dog-fish oil as the logs pass over, in order to diminish the friction. At the end of the skid-road lies the landing, where the logs are dropped by the oxen, marked with the stamp of the logger, and finally jack-screwed aboard cars drawn by steam or horses, which carry them down to tide-water. Here they are assorted, heavy sinkers being raised and attached at each end to the end of a buoyant log, collected into rafts and scaled for volume. Some neighboring morning a busy little stern-wheel steamer, of the type so common in waters near the Pacific, comes puffing up the slough, and fastening a rope to the raft carries it off to the mills, where the logs are placed in a permanent boom, and whence they can be drawn as necessity requires.

Donña Costa.

(CONCLUDED.)

AS the friends trotted on over the broad plain that fell back from the Adriatic, Victor, true to his promise, turned the conversation into the channel of his love and her charms.

"But who is she?" asked Andrea, "if you will permit such impertinence. I know her name, and you have painted her picture with a masterly touch; further than that I am as ignorant as a babe unborn."

"Just so, *mio amico!* The hand of fate dealt the cards that brought us together, and when you talk of destiny you have a long story. Well, you know that last year I spent the winter in Florence, the divine city. My aunt lives there, and I made my headquarters with her. I had been rather down-spirited for some time, hipped,

I suppose you would call it,—the old story of ill requited affections,—when my aunt, to enliven me, or herself, gave a bal-masqué. I endured it for a time, until the whole thing began to sicken me, and I was about to withdraw for the quiet of my own room and a peaceful cigarette, when I was attracted by a figure that stood pensive and alone, seemingly as tired of the present as I was myself. My *ennui* disappeared in the interest which this fair but listless creature conjured up.

"Presently she was observed by others, and then began a sort of persecution that made me wish to interfere. No sooner had one received his *congé* than another appeared, until the whole masculine element, saving your humble servant, had been imperatively dismissed by a wave of the head. Still she stayed. I became so inquisitive at last that I could stand it no longer, and, crossing the room, resolved not to take my dismissal so easily as my brethren had. On approaching her, what was my surprise to see her make room for me beside her, and say, '*Che bisognava parloré* (I was sure I should speak to you), and have kept this place for you.' I acknowledged in due form this courtesy, and asked to what kind fate I owed this happiness. To make a long story short, it appeared that we were old friends, acquainted as far back as our Padua days.

"Why, Andrea, you must know her! She was the little girl I was so desperately gone on, and who you used to twit me about. Since then she has seen many changes. Her aunt, with whom she lived, lost the most of her money through a rascally relative, and they were reduced to great poverty, when a friend, discovering what dramatic power she possessed, undertook her education, and at last secured her a position on the stage. Haven't you heard of Donña Costa? She is playing now at Venice."

"And so the renowned beauty, the incomparable actress, before whom I have worshiped devoutly for the last year, turns out to be little Bijou, and the sweetheart of my friend!"

"You have solved the mystery," said Victor. "Bijou and Donña Costa are one. But Bijou is

jealous,—as intensely so as in our University days, when she struck my aunt's niece for taking up too much of the conversation. Yes, she has a bright little devil of a temper of her own, and would not hesitate at any obstacle if driven to bay. Well! here we are, half way, and the *posada* looks anxiously at us, as if bidding for custom. Come, let us alight, and I can promise you as good a dish of macaroni as is to be found this side of Rome."

The young men delivered the bridles of their horses into the hands of the fat-faced servants who stood, wreathed in smiles, ready to receive them.

Meanwhile, the figure that we left at the church portals engaged in destroying a letter, stood silently watching the cloud of dust that enveloped the equestrians until the growing distance merged it into the soft, yellow haze that draped the horizon. Yet she did not turn her head. The interlacing and unclasping of her fingers alone told the disquiet of her mind, save for an occasional facial twitch, which seemed to act as a sort of emphasis.

"Signorina! Signorina!" She turned when a hand was laid on her shoulder after the second call, and saw standing before her a tall, muscular-looking man, with a deep olive complexion. His voice was soft and well modulated, and his eyes large and lustrous, full of depth and meaning. Two forces appeared to have been working in opposite directions in the formation of his features. The upper part seemed to be cast for noble purposes, high and commanding thoughts, but the lower debased the whole. A sensuous mouth, short, retreating chin, brilliant but treacherous smile, revealed the true character.

"You here?"

"Yes, Signorina, and I have been an unhappy witness of your discomforture."

"*Che vite voi?* (What did you say) — my discomforture?"

"*A Signorina mio;* I have lived in Florence as well as Venice."

"What has that to do with it?"

"*Ascalti dunque glielo dero subito* (Listen, then; I will tell it to you directly). There, as

you know, I had charge of the police,—Chief Commissaire. Buono! I knew the actress Donña Costa,—*superbe, grande, magnifico!*" and he clasped his hands, turning his eyes in mute appeal to heaven for corroboration. She did not know me, however,—not then. I also knew the young Victor della Fraçescolla. I loved him; he did not know it, but I loved him as—as—a son. I watched the tender passion from its infancy, and longed to be a poet, to lay its glorious beauty before the world. That, however, was denied me. Signorina, he loved; ask me not who, but think. He loved; his love was returned,—the two were like the oak and ivy. It makes me weep when I think of it. What do I see now? This same young man tenderly caring for a beautiful princess! Did you notice how he bent over her as he assisted her to mount? Did you note the care he took in every little detail? Signorina, he is faithless; he is not deserving of a true heart."

"It is false! This very morning he was to meet me here."

"See," and the Commissaire smiled meaningly,— "he wanted you to be a witness of what has just past. It added zest to his triumph to know that you were near at hand. You know the presence of pain enhances pleasure."

"He dare not!" and the actress turned on the chief so suddenly that he drew back.

"But he has, Donña Costa, he has; and you and I have witnessed it, and soon all the world will know it"

"From you?" and she drew nearer to him.

"Me, *carrissima!* no; but from that fair-faced beauty that has just sped over the plain."

"That she never shall! I know where he is taking her, and —"

"And what, Bijou?"

"Bijou! How dare you call me that?"

"I did it unwittingly; the young man so entitled you whenever I heard him speak."

"He has much to account for. I have to go." She turned hastily, and began to descend the steps.

"A word first," and her companion stepped forward. "I think I can aid you. This young

minx who has entrapped the passing affections of Della Fraçescolla is known to me, and Venice has need of her. Now, if you can pilot me to where he has taken her, I have that about me—State papers—that will make the young lover fling her off as he would a worn glove."

"Why did you not arrest her here?"

"I came too late,—and then, I did not recognize her at first."

"Have you aught against Fraçescolla? I know your trade."

"Madonna Maria! nothing. Have I not got him here," and he stretched out his thumb and patted its under side, "any time I want him? It's the girl that I want, Donña,—that we both want. '*Alla buon ora! Lei non passo dar un rifiuto* (To you I can refuse nothing). I swear," seeing a distrustful look in the Donña's face, "that far from hurting him, it will redound greatly to his good and to yours. See!" and he kissed a small cross that he drew from his pocket; "I do all that man can; the Holy Church asks no more."

"It must be. He has brought it on himself. Hasten, then, or we are too late. Have you horses?"

"I can get them. In the village there is a carriage. It is better than traveling *à cheval*, and need not detain us for dress."

An hour later, a carriage drawn by four horses rattled through the narrow streets and disappeared in the gloaming.

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"And now, Andrea, here we are," said his host as they alighted in the court-yard of a massive old building that seemed built to resist a siege. "Here you need not fear embodied or disembodied spirits. This belonged to my mother's father, and was inherited by him through a long ancestry. It could tell many a tale of terror, fierce assault and stubborn defense; and if that is not enough, there is that below which will satisfy the most prying. I have never been below myself, but if at any time you wish to explore these mysteries, this is the stone to move." They had entered the main hall while talking, and the young man tapped with his foot on a

large, square block of marble that had every appearance of being as firmly a part of the whole as its neighbors. "The key to the entrance is here"; and he stepped to the wall and pulled an iron ring that would not have been noticed unless sought for. As he pulled, one end of the immense block dropped, the other side evidently working on a hinge. The stone thus removed revealed an aperture large enough for a man to enter, and a stairway, the lower part of which was hidden in darkness. Andrea shuddered as the cold air rushed up from the vault.

"What are those words cut in the opposite block, Victor? It looks familiar, yet I cannot make it out."

"A proper welcome for such a hell," was the reply. "Simply Dante's inscription over a like abode,—'Farewell to hope, all ye who enter here.' Enough; let us get into a more congenial retreat. This is sufficient to raise a whole legion of blue devils." On the wall opposite the ring he pressed a spring, and the marble resumed its place, becoming once more a part of the floor.

"You say, Victor, that we are secure here from the powers of earth and air; but my heart is heavy, and time is filled with possibilities. Supposing you away and my retreat discovered: it seems as if the fox at last were caged."

"O faint of heart! Why, I know every foot above,—and below, for that matter, though I was never there. Step in here"; and he pushed open a door, ushering his guest into a large-sized room with a lofty ceiling, from which fell heavy silk hangings except where the walls were shelved, in which case they were filled with books. "This is the library, and it is considered a pretty fair one. This," and he unfolded a parchment,— "is a plan of the castle. Here are the steps leading underground, and here are all the windings of its many halls. Supposing such an improbable thing should occur as that which you have mentioned. By opening the trap you can descend; there is a lamp on the left-hand side four steps down,—here it is, marked on the diagram,—always ready. The stone moves back into place readily by pushing it with your hand,

and thus bids defiance to your enemies. At the farther end of the first hall you will see a white cross marked on the wall. It is a door, though no one would imagine it. Push, and it will open. From there you can escape into the chapel, or take your chances abroad.

Early the next morning a carriage drew up before the entrance-gate, but was denied admission. The driver insisted, and a lady's voice seconded his appeal. At last the young lord was sent for, and appeared at a window.

"Victor! Victor!" exclaimed the lady, "do you not know me? I have traveled all this way to see you, and am denied admission. It is Bijou, Victor; I have much to say."

The servants were ordered to open the doors, and the carriage dashed in. Victor assisted Donña Costa from the carriage, and after a few inquiries and congratulations asked who the gentlemen were who had accompanied her. Three had dismounted besides the coachman.

"They will speak for themselves, signor," said the chief, interrupting any other reply. "I am armed with the powers of State for the arrest of Andrea Jesus Belotti Bianca, who is concealed in this castle under the guise of a woman."

"Andrea!" shrieked the actress. "You said a girl, denounced by the Directory," and she grasped the chief by the arm.

"Diplomacy has its ruses as well as love, my dear," answered that worthy with a shrug. "All you men," and he turned to the wondering servants, "under penalty of proving traitors to the State, make fast every bolt and bar—let no one pass. Here is the seal of State for you and me to obey."

"Throw open every door, or you are no servants of mine!" yelled Victor.

"Signor, I arrest you as a traitor." At a motion from the chief the two men rushed forward and bound him.

"What did you tell me? What did you swear on the blessed cross?" panted forth Bijou, as she saw her lover bound hand and foot before her.

"It's but a white sin, my pretty one, when it's in discharge of your duty."

"Victor! Victor! I did not know this. He lied to me. Here! I will free you," and she endeavored with a small knife to cut the cords that bound him.

The knife was forced from her, and both of the lovers were carried into the house. Every part of the building was searched for Andrea, but without success; not the faintest trace could be found.

"Victor," said the unhappy girl, while the rest of the party were hunting for Andrea, having first locked them securely in one of the rooms, "Victor, was not that a girl who accompanied you from Poncevat on horseback?"

"A girl! it was my dearest friend, your friend, if you have any memory,—Andrea Bianca. I must confide in you now, and try and help him escape, even if I perish. I promised him liberty, and here death awaits him. Know, Donña, that I have sent Andrea to the wrong gallery, where he never can get out if he should follow my directions for a year. I told him the first hall, whereas it should be the second. Now, I want you to lift the slab in this way as you see written in that paper on the shelf near where you sit. When the others are not looking, slip out and follow every word of the directions you find in that paper. Tell Andrea to fly, and let me shift for myself. Will you do it?"

"I will, Victor; but cannot you escape with me? I will return"—Here she was interrupted by the returning party. The two men seized Victor by the shoulder and dragged him across the hall into another room. The chief stayed with Donña. "Now tell me where Andrea is," and he took her hand.

"Liar! do you think even if I knew that I would tell you?"

"Yes, to save Victor. Tell me, for I know that he told you, as I left you together on purpose, so that he should, or Fraçescolla will suffer as no mortal has suffered before. Hark! they are at it even now." A groan came from across the hall. "Tell me quick, or telling will do no good."

"Here, take this paper; he is there; let me

go ;" and she fled to the room from which low groans were coming. The chief followed her and motioned to his attendant, who placed Victor in a chair and withdrew. White as a corpse the young man lay with his head on the actress' shoulder in a dead faint. After what seemed to Donña an immensity of time, the sound of steps approaching could be heard, and shortly after the men entered bearing the body of Andrea, with a poinard through it.

"This is none of our business," said one of the men, surlily ; "he took the thing into his own hands."

"And a bad job he made of it," replied the other.

"The signorina is wanted in the other room," said the last speaker. "I almost forgot to tell you." Donña crossed the hall and found the chief, who was walking up and down the room smoking a cigarette.

"I sent for you because there is still a little work to be done, and you interrupt my men."

"I thought that you wanted to arrest your prisoner, not to murder him. The State shall hear of this if I ever live to get out."

"A wise provision. Yes, the State will know, but what does the Directory care for the State. I called myself a State official to quiet the many tongues below, and am provided with papers to prove me such ; but it is the Directory that has judged these men, and sent me forth to execute their decree. I have been on their track for months."

"And is Victor to be sacrificed as well as Andrea? Say no! spare him! See! I beg you!"

"On one condition."

"And that?"

"Is that you shall be mine. You will have to be quick, as they will soon be at work in the other room."

"I will! I will! Make out a paper giving him liberty, and let me place it in his hands, and I am yours."

"Here is the paper, Bijou ; now hurry—give it to him and return quickly, or I will countermand it."

"Is this the paper?" she asked, coming up close beside him."

"Yes."

"Then die!" and she plunged a stiletto into his side. He groaned—started to his feet—made a convulsive grasp for Donna, and fell back.

With a smile and a bright drop of red on her dress from the stiletto point, she returned to Victor with the paper in her hand, carefully locking the door after her.

Victor still sat in his chair, motionless ; the color had vanished from his face, and the blue and ashy hue of death replaced it. Yes, he was dead ; and fastened across his breast was a paper on which was written, "Done by order of The Tribunal of Justice." So she stood before her dead, with one hand extended holding the reprieve. When the timorous servants at last ventured into the room, they found the body of a woman, of wondrous beauty, holding in her outstretched hand a formal letter of pardon and safety toward the dead man at whose feet she crouched.

Noticeable Articles.

In the *Nineteenth Century* for January, besides the paper on American Statesmen by Goldwin Smith noticed in our last number, there is a paper on Shelley by Matthew Arnold which, it need hardly be said, is well worth reading. It is a review of the bulky life of Shelley by Professor Dowden recently published,—a book the appearance of which Mr. Arnold is disposed to regret. Why, he asks, was it necessary to publish at such length all the details of Shelley's private life? And it is a question which has to be asked of other biographies besides, and notably of Froude's unfortunate "Carlyle." Mr. Arnold quotes a passage from the account of Shelley by his friend Hogg : "Hogg has been speaking of the intellectual expression of Shelley's features, and he goes on,—'Nor was the moral expression less beautiful than the intellectual; for there was a softness, a delicacy, and a gentleness, and especially (though this will surprise many) that air of profound religious veneration that characterizes the best works and chiefly the frescoes (and into these they infused their whole souls) of the great masters

of Florence and Rome.'" "What we have of Shelley," continues Mr. Arnold "in poetry and prose suited with this charming picture of him; Mrs. Shelley's account suited with it; it was a possession that one would gladly have kept unimpaired. It still subsists, I must now add; it subsists, but so as by fire. It subsists with many a scar and stain; never again will it have the same pureness and beauty which it had formerly. I regret this, and I confess I do not see what has been gained. Our ideal Shelley was the true Shelley, after all; what has been gained by making us at moments doubt it? What has been gained by forcing upon us much in him which was ridiculous and odious, by compelling any fair mind, if it is to retain with a good conscience its ideal Shelley, to do that which I propose to do now. I propose to mark firmly what is ridiculous and odious in the Shelley brought to our knowledge by the new materials, and then to show that our former beautiful and lovable Shelley nevertheless survives." And then follows an admirable sketch in which Shelley's faults and weaknesses are not spared, though they are to some degree explained and extenuated by his surroundings. All this is much better than the twaddle of "Shelley Societies." Of these surroundings Mr. Arnold says: "What a set! What a world! is the exclamation that breaks from us when we come to an end of this history of 'the occurrences of Shelley's private life.' I used the French word *bête* for a letter of Shelley's; for the world in which we find him I can only use another French word, *sale*. Godwin's house of sordid horror, and Godwin preaching and holding the hat, and the green-spectacled Mrs. Godwin, and Hogg the faithful friend [who tried to seduce his friend's wife], and Hunt, the Horace of the precious world . . . and Lord Byron, with his deep grain of coarseness and commonness, his affectation, his brutal selfishness —what a set!"

And he concludes thus: "It is his poetry above everything else which for many people establishes that he is an angel. Of his poetry I have not space now to speak. But let no one suppose that a want of humor and a self-delusion such as Shelley's have no effect upon a man's poetry. The man Shelley in very truth is not entirely sane, and Shelley's poetry is not entirely sane either. The Shelley of actual life is a vision of beauty and radiance indeed, but availing nothing, effecting nothing. And in

poetry, no less than in life, he is 'a beautiful *and ineffectual* angel, beating in the void his luminous wings in vain.'" This, too, is better than the twaddle of Shelley Societies.

I the more willingly draw attention to this article as I had not time to include Shelley in my course last term. The readers for whom Professor Dowden's bulky volumes are too much, will find a good sketch by Symonds in "English Men of Letters."

Frederic Harrison, who seems to have been attacked by somebody about his "Choice of Books," in his capital little volume of essays with that title, gives us a lively dialogue between a student and a reader for mere amusement, in which the latter fares hardly, and at last is fain to ask, "Come, now, what is it that you want me to do?" and the answer is, "Why, simply to choose your books with a little of the care which you now so wisely show in choosing your partners and your friends. To hurry on round the galleries of Europe, is to see a great deal and to know nothing; to get a smattering of art, and to know nothing truly. To feel poetry deeply, to love literature nobly, you must keep your brains from the everlasting gabble and the *assafætida* of modern carrion. He who is ever ready for Offenbach will never be a lover of Beethoven. You had better dance all night with a dairymaid and sup with a lot of betting-ring men than spend an evening with Zola, or work through Mudie's list of new novels." But discounting Zola and the bulk of Mudie's novels, there is something to be said on the other side; for contemporary literature is surely not all "gabble" and "assafætida," and, *pace* Mr. Harrison, there is room in life for a good deal of useful miscellaneous reading.

In the *Fortnightly* for January, the learned Professor Tyrrell, of Dublin University, writes a new "Dialogue of the Dead"; and the way in which, down in the shades below, the ghosts of Bentley and Madvig "go for" the Oxford deputy professor of Comparative Philology, Sayce and his edition of Herodotus, and his theory of the European origin of the Aryans, is amusing even to outsiders. The ghost of the great English scholar lays down a law of rhetoric which is worth incorporating into our text-books here above: "In writing, take my word for it, if the grammar is loose, the thinking is loose, too. Correct grammar is the outward and visible sign of an inward and spiritual clearness."

The *Century* for February has a charming paper by Mr. Lowell on Landor, which will comfort those who have been unable to join in the indiscriminate eulogy of Landor as a prose writer. W. P. A.



Physics came very near exterminating '90.

Let us weep for '90; she has lost her Adonis.

Giles Taintor, '87, made a short stay in Boston recently.

E. L. Hamilton, '90, was recently initiated into the Hammer and Tongs.

Mr. Draper, '87, former Editor of THE TECH, was with us a few days last week.

The Society of '90 recently had a sleigh-ride party.

A. L. Kean, '88, has been elected a member of the Editorial Board of THE TECH.

Seven men of last year's foot-ball team will probably return to the Institute next fall.

How many men in '88 know what they are going to do after they graduate?

February 1st the Hammer and Tongs Club saw Irving as Mephistopheles in "Faust."

Willard and Mitchell of the eleven have left the Institute.

The Cycle Club propose giving a Hare and Hounds run on the 22d.

Semi-annual duns from the Bursar are fast coming in.

The Sophomore Architects are working on a design for a Corinthian portico.

Both the Society of '88 and the Society of '89 met at Parker's on the 10th.

The toboggan slide on the Union Grounds has been somewhat patronized by Tech. men.

Several Dartmouth men who were recently in town viewed the corridor of Rogers, where that little flag hangs.

The Class-Day Committee of the Senior Class have begun work, and are holding regular weekly meetings.

Mr. Irving and Miss Terry were a great attraction to Tech. men during their recent engagement at the Boston.

The foot-ball pictures have been so long delayed that THE TECH will probably not have a photogravure of the team this year.

Cromwell, '88, who was injured in the Amherst game last fall, will return to the Institute next year and graduate with '89.

The shingles and seals are now in the hands of the Secretary of the Athletic Club, and will be distributed to members shortly.

A lease of the Union Grounds for next fall has been refused the Foot-Ball Association until the expenses of the bonfire have been paid.

The *Electrical Engineer* is reprinting Professor Holman's articles on Precision of Measurements from the *Technology Quarterly*.

The incandescent lights in the Architectural Department came in very handy for burlesques of some of Irving's Mephistophelian phenomena.

At a recent memoir meeting of the Senior Miners, Mr. Hastings read a paper on the Treatment of Gold Ores, as worked by former students of the Institute.

The M. I. T. A. S. held a meeting Tuesday evening, February 14th, in Rogers Building. A half-hour sketch problem was among the diversions.

The third-year Chemists, to the number of eighteen, visited the large chemical works at South Wilmington, February 10th. Dr. Norton was in charge of the party.

One of the latest from the Freshman Laboratory is, that Mrs. Stimson was applied to the other day for "some pots to make potash from."

Notice.—Freshmen wishing to try for positions on the great Bijou nine for 1888, will report for practice every evening after dark on the campus, at the rear of the gymnasium.

The Society of Arts met at the Institute February 9th. Hon. W. A. Russell read a paper on the Manufacture of Paper and its Uses, and Professor Norton a paper on Natural Gas.

Mr. Warren has temporarily resigned his position as Editor-in-Chief of THE TECH, on account of pressure of studies. The next few numbers will be issued by the whole Board of Editors.

It is said that there were 85 Fs and 30 FFs in Freshman Chemistry. Sophomore Physics has but a little better record, there being only about 80 men who did not fail. Of these, 2 got Hs, and 5 Cs.

The Class of '90 held a meeting February 6th, and elected a committee of twelve to report to the class the names of the men they considered best qualified for "Technique" editors. The committee is to report in two weeks.

There was a 24-hour run for lead in the Mining Lab. recently, beginning on the morning of February 2d. The Miners were assisted by several of the Senior Chemists. The work was in connection with Mr. Sully's thesis.

Somebody has said that the horse understands German more readily than any other tongue. Whether this be so or not, the fact that an English bull-dog entered Professor Otis' German class the other day remains the same.

The K₂S met at Young's, January 20th, and initiated the following Chemists: A. M. Forristall, G. W. Fuller, J. A. Carney, and P. T. Simpson, all of '90. The next meeting of the Society will be held at the same hotel, Friday 17.

The Class of '87 have issued very pretty souvenirs of their Class-Day exercises. The title page is a photogravure, containing likenesses of the President of '87 and the Class-Day officers. The book contains the Class History, Prophecy, Ode and Poem, together with the statistics.

"Doctor, can you tell me what will prevent my food from hurting me?"

"Nothing easier; don't eat it."

"Ha! ha! very good joke."

"Not at all; three dollars, please. If you have any further trouble come again, and we will try some other course."—*Chironian*.

Professor Atkinson's interesting and instructive article in the last *Quarterly* must be an agreeable surprise to many of that magazine's numerous readers. A fine literary paper never appears to a better advantage, to the general reader, than when sharply contrasted with the strictly scientific.

The lectures now being given in Association Hall for the benefit of a Marine Biological Laboratory, have been very successful thus far, as over \$1,500 has already been realized. The best of the lectures are yet to come,—that on Composite Photography promising to be the most interesting of all.

Mentions in the Architectural Department on the last problems were awarded as follows: Fourth year, design for a proscenium box,—first, Bigelow; second, Proctor; third, Shattuck. Third year, design for a clock tower,—first, Kilham; second, Edwards, Pietsch; third, Crane, Wales, Dittrich.

The *Architectural Review* made its appearance Friday. This is the most ambitious enterprise ever attempted in the world of college journalism, and certainly deserves support from all. The plates are photogravures,—reproductions of work done here in the Architectural Department. There are six in the first number.

E. S. Webster, '88, H. French, '89, and G. Storrow, '89, have been doing Florida in the vacation. Private advices say that the State authorities are trying to gather up enough remnants to get through the summer with, but find it hard, owing to the thorough methods of the above gentlemen. Score one for technical education.

J. W. Cartwright, '89, and G. C. Wales, '89, have returned from their Arctic voyage. Notwithstanding prophecies of being frozen out, they appear not to have suffered *much*; and the only regrettable consequence of the expedition was that one reported the iceberg they landed on to be fifty feet high, and the other two hundred and eight.

A Tech. reports the following à la "English As She Is Spoke," which he ran across during the late vacation : "Drive straight ahead, young man, till you come to the place where the roads *divulge*." "The doctor came in and wrote three *proscriptions*." "He has a *carbolic* (carbuncle) on his neck"; and, finally, a washerwoman on being engaged gave voice to her sentiments by asking pathetically, "Where shall we place this occasion?"

Mr. C. H. Livermore, who has just been appointed Associate Professor of History, was graduated at Yale University in 1879. After graduation he undertook the principalship of a leading academy in Connecticut. This position he gave up to become Fellow in History at Johns Hopkins University, where he received the Doctor's Degree in 1886. During the past two years he has been Instructor in History in the University of California.

A summer course in Topography and Geodesy will be inaugurated this year. The course is intended for students of Course I. who have completed their third year, although others who are properly qualified will be admitted. There will be from four to six weeks' continuous field practice, and the instruction will be in the various steps incident to a complete geodetic survey. Practice in topographical surveying will occupy a considerable portion of the time, and the simpler operations of field astronomy will be executed at one of the stations occupied.

College Notes.

Twelve designs have been submitted for the Sheff. Freshman cane.—*Yale News*.

The average length of life of the presidents and professors at Yale who have died in office or have ended their active careers with their retirement from office, is 64 years.

A debating club has been formed by the students of Oberlin College for the purpose of discussing and investigating the land-tax doctrines of Henry George.

During the year ending last June, 1,700,000,000 cigarettes; an enormous increase over the year before.—*Yale News*.

The athletic clubs of the Pacific coast are to send a team East next September to compete with college and Eastern club athletes for amateur athletic championships.

For the winter term at the University at Leipzig, 3,288 students have matriculated.

The two performances of the Columbia Dramatic Club netted about a thousand dollars for the benefit of the Boating Association.

The National Athletic Association will hold a tug-of-war contest for the championship of America in Brooklyn, on February 21st.

Ohio has more colleges than any other State in the Union.

Manchester, the present captain of Wesleyan's foot-ball eleven, intends to become a missionary.

Ten successful photographs of the recent eclipse of the moon were taken at the Harvard Observatory.

Chauncey M. Depew is to have an article on Yale in an early number of *Harper's Magazine*.

Secretary of State Bayard has received the degree of LL.D. from Harvard, Yale, and Dartmouth.

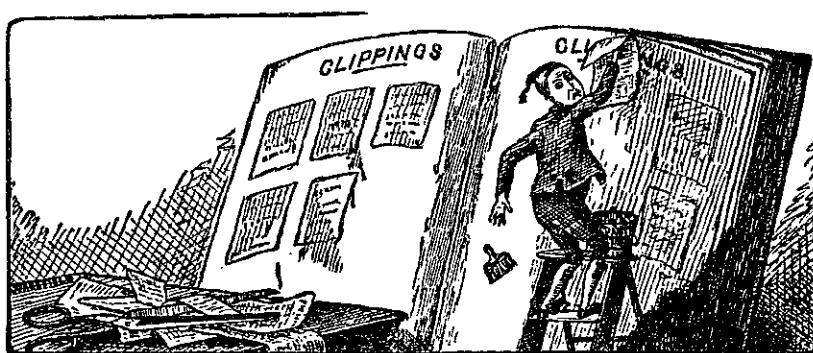
President Eliot, of Harvard, says he disapproves of all intercollegiate contests of every kind, and would abolish them if he had the power.

Oberlin College is working for a \$50,000 gymnasium.

No one is allowed to enter the Columbia School of Mines under 19 years of age.

Union College students have passed the following resolution: "That, unless a president shall have been elected before the end of the present term, we, the undergraduate students, shall feel it due our own interests to withdraw all loyalty and allegiance to the College, and transfer our interests elsewhere."

The University of Pennsylvania has erected a \$1,100 greenhouse to cultivate plants for botanical work.—*Ex.*



A VISION.

The dying fire's lurid blaze
Lights up her fair face brightly;
In mine her dark eyes seem to gaze—
But stop; do I judge rightly?
Somehow she seems to look away;
What can her looks be keeping?
So quiet, one would almost say
The lovely girl was sleeping.
She seems so very near to me,
Aye, almost at my hand,
And yet we're parted by the sea,
By many miles of land.
The fire is out—the shades of night
Are quickly passing o'er her,
So cruelly bidding from my sight
Her photograph by Mora.

—*Williams Weekly*.

CONVINCED.

"Now tell me, dearest, truth for truth,—
I sometimes fear you may have known
In boyhood, or your earliest youth,
Another girl you called your own.
"Forgive me if I seem to lapse
From perfect faith—that is not it!
I only wonder if, perhaps,
You ever loved, a little bit."
He thought of Kate, whose brilliant mind
Once gave to life its keenest zest;
He thought of Maud, whose hair had lined
The left-side pocket of his vest.
He thought of Lillie, Nell, and Sue,
Of gentle May, and saucy Nan,
And then, he did as others do,
And proved himself a truthful man.
With injured air and mournful eye
He sadly turned away his head.
"If you can think"—she heard him sigh.
"Oh! no—no—no! I don't!" she said.—*Ex.*

Adolphus has just folded his arms about her.
"Why," asked she, "am I like a well-made
book?" He gave it up. "Because I am bound
in calf." The "binding" was hastily torn off.

LETTERS.

"Lovingly yours," she used to write;
That was after our summer's fun—
Mark what the rocks and waves had done.
"Lovingly yours," she used to write
When college begun.

"Ever sincerely"—ah! a change;
Thus she forgets the lesson she taught—
Somebody else is paying court.
"Ever sincerely"—what a change!
She scarcely ought.

"Cordially"—this is very terse;
Such nonchalance will never do—
That summer's faded from her view.
"Cordially"—frigid—very terse.
I wonder—who?

"Yours;" ah well, I expected that;
That was after his winter's fun—
Mark what parties and hops had done.
"Yours, in haste;" I expected that
Ere college was done.

—*Harvard Advocate*.

FOOLED AGAIN.

Vacation o'er, we said good-bye;
And, with a twinkle in her eye,
She said, "When winter comes about,
I hope you'll try to find me out."
Cold winter came; the earth was bare;
So, as I did not see my fair
At dance, reception, ball or rout,
I went, and called, and found her *out*.

—*Yale Record*.

The jockey's horse has feet of speed,
Maud S. has feet of fame;
The student's horse has none at all,
But it gets there just the same.—*Ex.*

He came into the editor's room with a large roll of manuscript under his arm, and said, very politely, "I have a trifle here about the beautiful sunset yesterday, which was dashed off by a friend of mine, and which I would like inserted, if you have room."

"Plenty of room. Just insert it yourself," replied the editor, gently pushing the waste basket toward him.—*Ex.*

Lady: "Your clothes are very ragged. Can't I do some sewing for you?"

Tramp: "Yes, madam; you may sew an overcoat on this button, if you please. It seems to feel the need of society."—*Ex.*